

# Maximising solar power for our Victorian communities

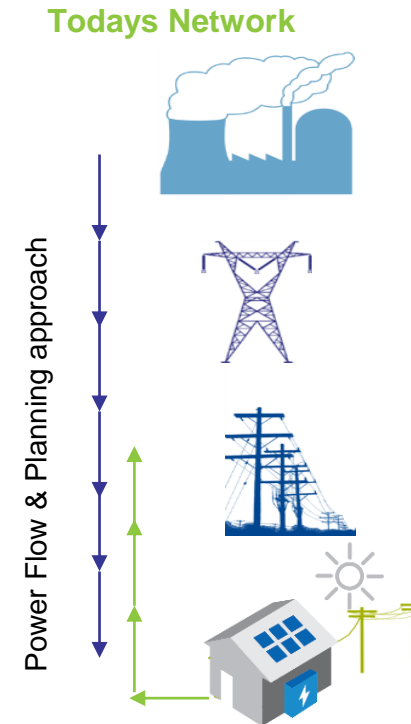
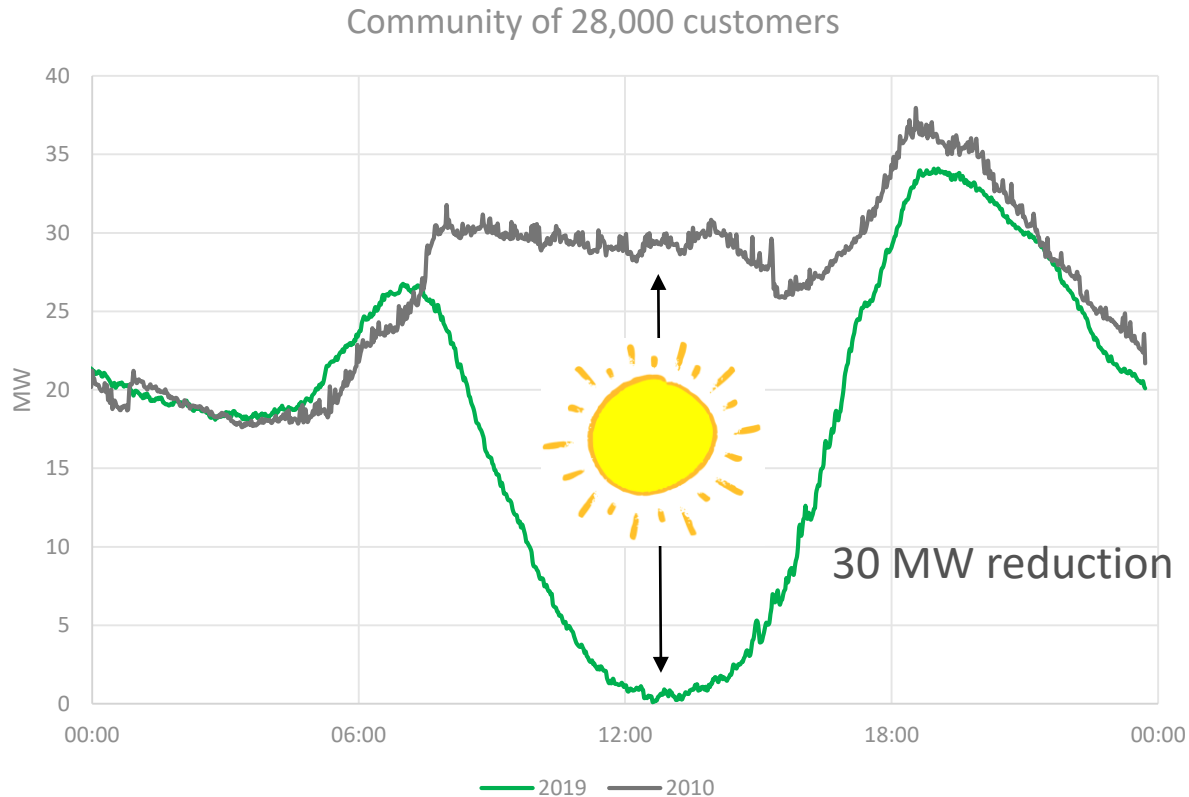


New inverter control enhancements - Volt-Watt and Volt-Var



Claire Cass - Network Solutions Manager at CitiPower Powercor  
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# Our solar communities are driving a rapid change in distribution of power



We are seeing whole communities generating more power than they and their neighbours consume

# And we are doing everything we can to get the power to where it is needed without pushing the voltage too high...or too low

New inverter control schemes will deliver enhanced benefits to our customers;

## Volt- Var

– will absorb or produce reactive power to decrease or increase voltage as needed

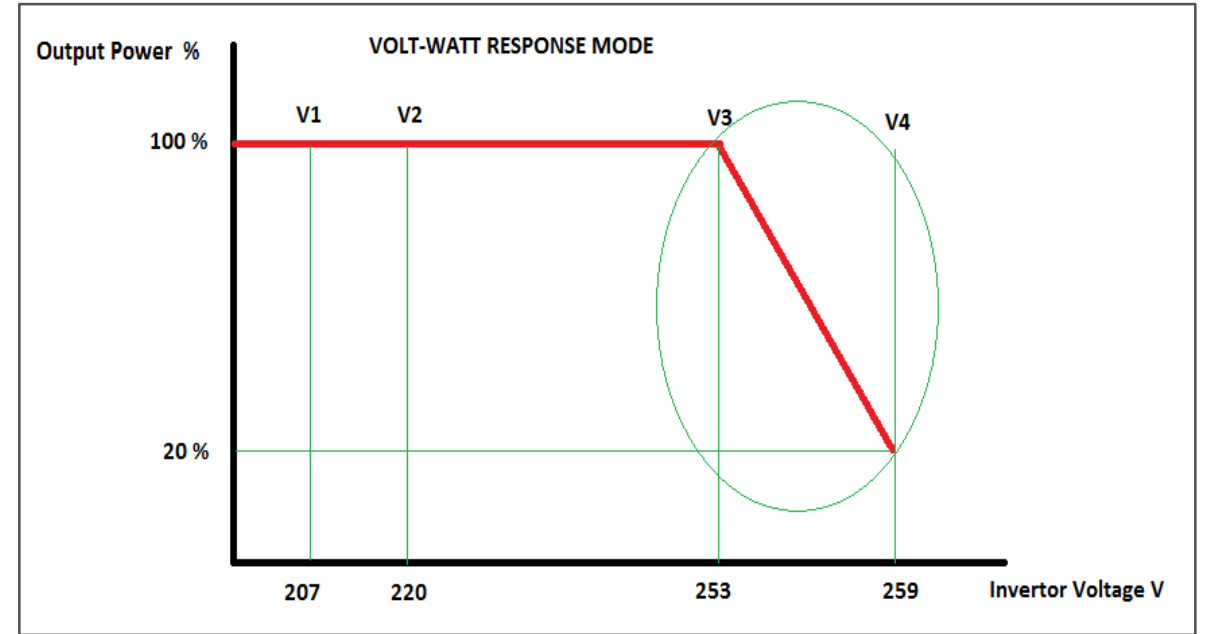
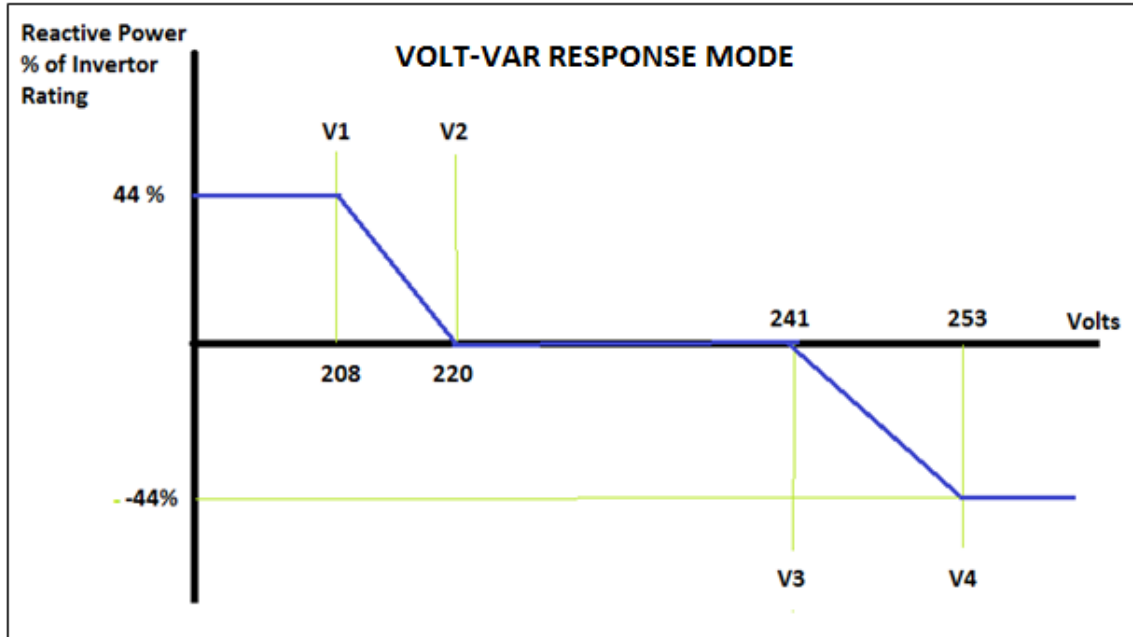
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## Volt- Watt

– will to help avoid a complete shutdown of the inverter by temporarily curtailing output

All Victorian Distribution Network Service Providers have agreed to common settings for inverters

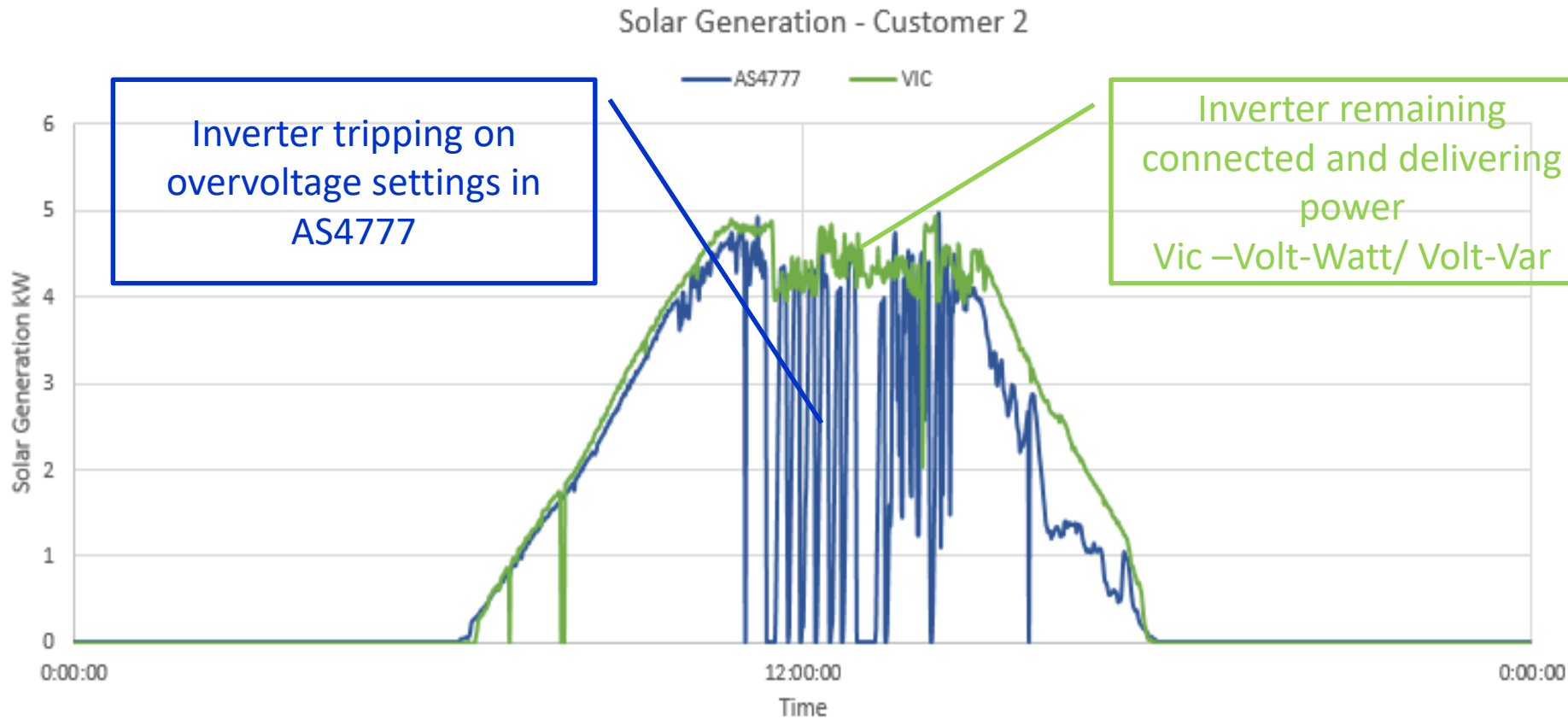
# Proposed settings - how does it work?



- At high voltages, this scheme allows reactive power to be imported from the network -> Lowers POC voltage.
- Allows generation to continue near maximum output / control voltage until upper voltage level is reached.
- When upper voltage level is reached, generation output is curtailed as a last resort to maintain voltage.
- The reverse occurs when POC voltage is low (provided the solar PV is generating).
- In addition to the above, the cut-off voltage is increased from 255V to 258V.

# The value of Volt-Watt and Volt-Var

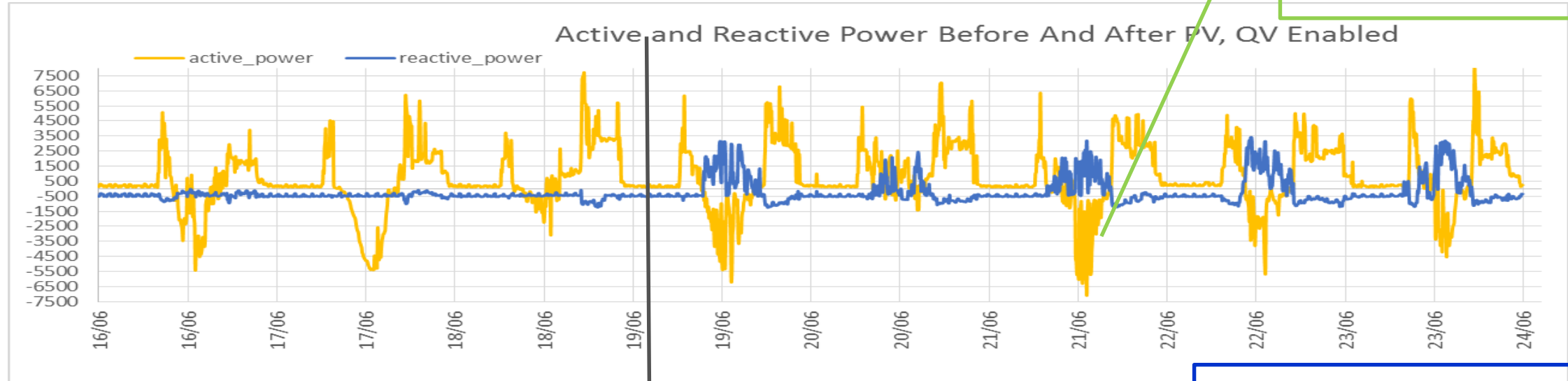
Helping our customers stay connected and produce more energy



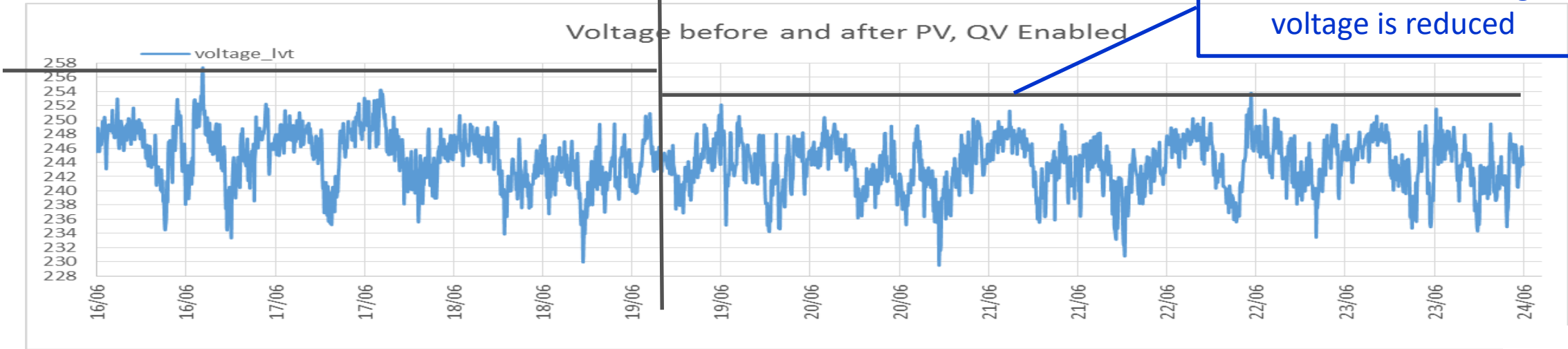
# The value of Volt-Watt and Volt-Var

Helping all of our customers by ensuring voltages remain within limits

Inverter delivering a similar amount of export



Maximum and average voltage is reduced



# Implementing these changes

- Each Victorian Distributor’s Model of Standing Offer (MSO), i.e. our terms and conditions for Basic Connections, has been updated and approved by the AER
- New MSO comes into effect on 1<sup>st</sup> December 2019\*, to align with DER Register changes
- Victorian Networks are working closely together on the roll-out of the new Agreement and DER Register to minimise customer impact



# We're all part of the solution...



## Customers

- ✓ Use an accredited CEC installer
- ✓ Check the quote – is it the right meter?
- ✓ Work with your installer to ensure a successful installation



## Networks

- ✓ Provide a clear and reasonable connections policy
- ✓ Keep installers and RECs informed / updated
- ✓ Provide the approved inverters list on website (filtered CEC list)
- ✓ Work with CEC to improve compliance and make it easier for customers to do the right thing
- ✓ Work with all Victorian Networks to ensure consistency



## Installers

- ✓ Help customer gain export pre-approval
- ✓ Choose only 'smart' inverters on our approved inverters list
- ✓ Set inverters correctly – help your customers!
- ✓ Systems configuration as per guidance on website
- ✓ Once installed tell us what you have done – for DER Register (follow prompts)



## Inverter Manufacturers

- ✓ Offer smart meters with both volt watt and volt varr
- ✓ Ensure settings are simple to implement – how to's
- ✓ Potentially include a 'Vic Network Standard' default?



Thank you for your time

Questions?



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